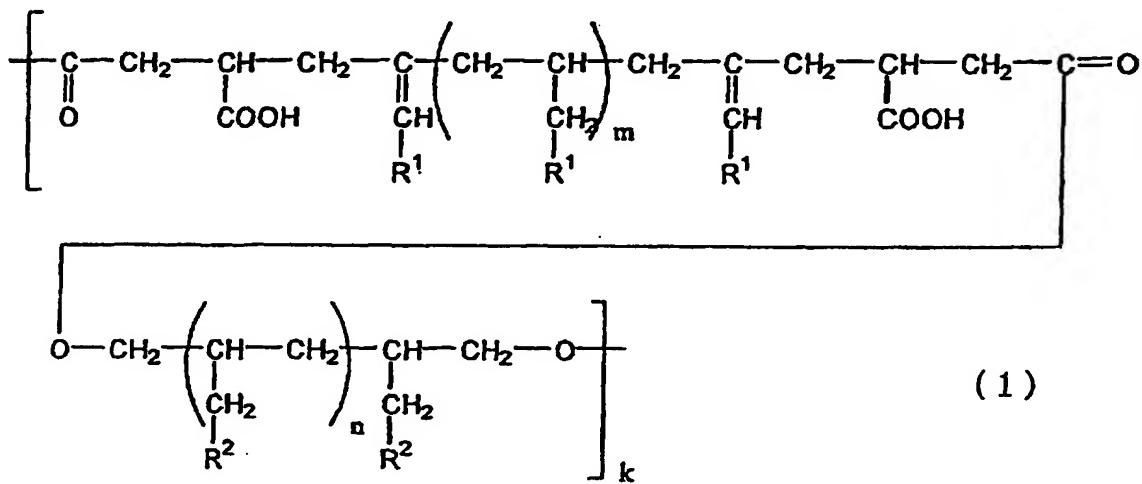


CLAIMS

1. A polyolefin/polyolefin block copolymer represented by the following general formula (1):

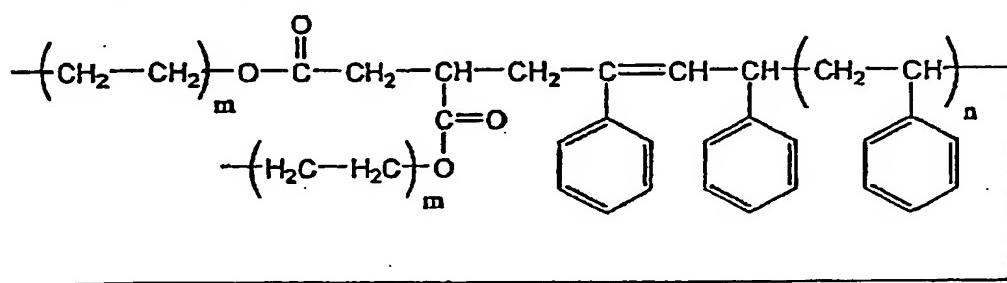


wherein R¹ and R² each independently represent a hydrogen atom or a methyl group, m represents an integer of from 10 to 200, n represents an integer of from 10 to 200, and k represents an integer of from 5 to 3000.

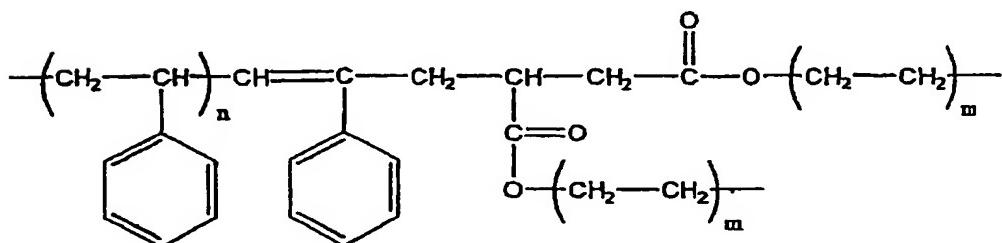
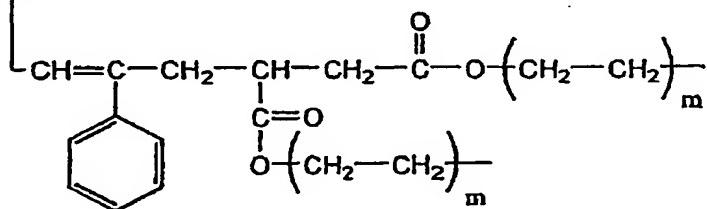
2. A process for producing a polyolefin/polyolefin block copolymer, the process comprising hydroxylating a polyolefin selected from the group consisting of atactic telechelic polypropylene, isotactic telechelic polypropylene, syndiotactic telechelic polypropylene and isotactic telechelic poly-1-butene at its both terminals, separately modifying a polyolefin the same as or different from the polyolefin selected above at its both terminals with maleic anhydride, and obtaining a block copolymer through an

esterification reaction between the hydroxylated polyolefin and the maleic anhydride-modified polyolefin.

3. The process for producing a polyolefin/polyolefin block copolymer according to claim 2, wherein the esterification reaction is conducted under reduced pressure in the absence of solvent.
4. A polystyrene/polyethylene block copolymer represented by the following general formula (2) or general formula (3):



(2)



(3)

wherein m represents an integer of from 500 to 50000 and n represents an integer of from 50 to 5000.

5. A process for producing a polystyrene/polyethylene block copolymer wherein the polystyrene/polyethylene block copolymer is obtained through an esterification reaction between a maleic anhydride-modified polystyrene and a hydroxylated polyethylene.